

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 1-8, 10-17 and 19-26 are pending. Claims 1-8, 10-17 and 19-26 stand rejected.

Claims 1, 3-6, 10, 12-15, 19, and 21-24 have been amended. Claims 2, 11, and 20 have been canceled. No claims have been added. Support for the amendments is found in the specification, the drawings, and in the claims as originally filed. Applicants submit that the amendments do not add new matter.

REJECTIONS UNDER 35 U.S.C. § 102

Claims 1-2, 4-8, 10-11, 13-17, 19-20, and 22-26 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,926,646 of Pickett et al. ("Pickett").

Amended claim 1 reads as follows:

A machine-implemented method comprising:

analyzing one or more instructions of a first program;
modifying the first program to expand a register set that includes a first set of local registers and a second set of output registers for a routine in the first program transparently to execution of the first program that includes adding one or more registers to the register set between the first set and the second set to generate an expanded register set, wherein the one or more registers of the expanded register set are used by a second program to store data used to analyze the execution of the first program;
identifying one or more register moves that move data between registers of the expanded register set for the routine; and
modifying the first program to perform the identified one or more register moves.

(Amended claim 1)(emphasis added)

Pickett discloses context-dependent memory mapped registers for transparent expansion of a register file. In particular, Pickett discloses:

A microprocessor includes an expanded set of registers in addition to the architected set of registers specified by the microprocessor architecture employed by the microprocessor. The expanded set of registers are memory-mapped within the context of the program being executed. Upon a context switch, the

microprocessor saves the state of the expanded registers to the corresponding memory locations. An application program may make use of the expanded registers by assigning the most-often used operands in the program to the set of memory locations corresponding to the expanded registers. The application programmer may then code instructions which access these operands with register identifiers corresponding to the expanded registers.

(Pickett, Abstract)(emphasis added)

Thus, Pickett merely discloses an expanded set of registers in addition to the architected set of registers specified by the microprocessor. In contrast, amended claim 1 refers to modifying the first program to expand a register set that includes a first set of local registers and a second set of output registers for a routine in the first program that includes adding one or more registers to the register set between the first set and the second set to generate an expanded register set.

Further, Pickett discloses accessing the operands using the register identifiers corresponding to the expanded registers. In contrast, amended claim 1 refers to identifying one or more register moves that move data between registers of the expanded register set for the routine; and modifying the first program to perform the identified one or more register moves.

Because Pickett fails to disclose all limitations of amended claim 1, applicants respectfully submit that amended claim 1 is not anticipated by Pickett under 35 U.S.C. § 102(b).

Given that amended claims 10 and 19 contain the limitations that are substantially similar to those discussed with respect to amended claim 1, applicants respectfully submit that amended claims 10 and 19 are not anticipated by Pickett under 35 U.S.C. § 102(b).

Given that claims 4-8, 13-17, and 22-26 depend from amended claims 1, 10, and 19 respectively, and add additional limitations, applicants respectfully submit that claims 4-8, 13-17, and 22-26 are not anticipated by Pickett under 35 U.S.C. § 102(b).

REJECTIONS UNDER 35 U.S.C. § 103

Claims 3, 12, and 21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Pickett in view of U.S. Patent No. 5,644,709 to Austin ("Austin").

It is respectfully submitted that Pickett does not teach or suggest a combination with Austin, and Austin does not teach or suggest a combination with Pickett. It would be impermissible hindsight, based on applicants' own disclosure, to combine Pickett and Austin.

Pickett discloses context-dependent memory-mapped registers for transparent expansion of a register file. Austin, in contrast, discloses a method for detecting computer memory access errors.

Furthermore, even if the expanded set of registers of Pickett were incorporated into detecting of computer memory access errors of Austin, such a combination would still lack modifying the first program to expand a register set that includes a first set of local registers and a second set of output registers for a routine in the first program transparently to execution of the first program that includes adding one or more registers to the register set between the first set and the second set to generate an expanded register set, wherein the one or more registers of the expanded register set are used by a second program to store data used to analyze the execution of the first program, as recited in amended claim 1.

Additionally, a combination of Pickett and Austin would still lack identifying one or more register moves that move data between registers of the expanded register set for the routine; and modifying the first program to perform the identified one or more register moves, as recited in amended claim 1.

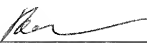
Given that claims 3, 12, and 21 contain the limitations that are similar to those discussed with respect to amended claim 1, applicants respectfully submit that claims 3, 12, and 21 are not obvious under 35 U.S.C. § 103(a) over Pickett in view of Austin.

It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Tatiana Rossin at (408) 720-8300. If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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